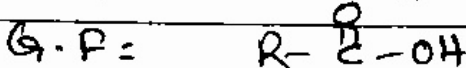
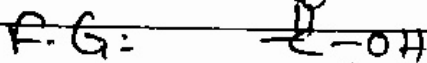
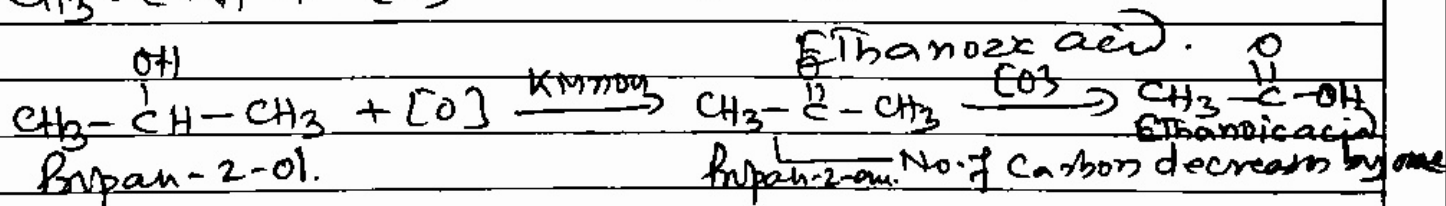
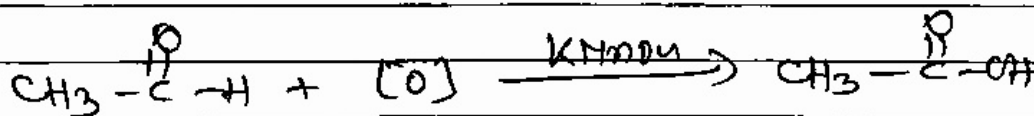
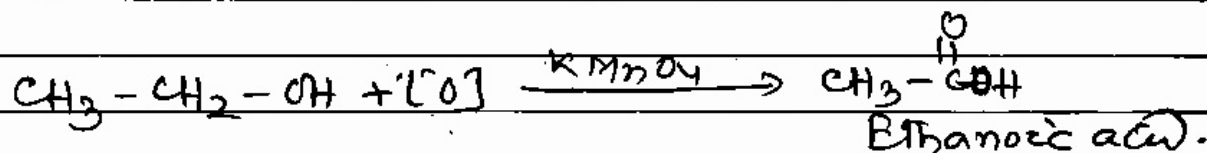


Carboxylic acids

General I.U.P.A.C name: Alkanozoic acid.

Preparation of Carboxylic acid: →

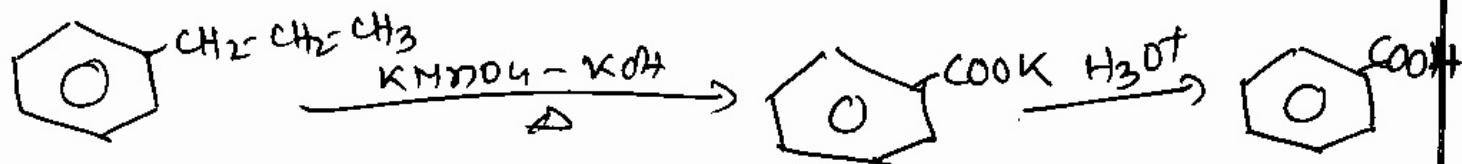
1. By oxidation of alcohol or aldehyde: →
 When 1° Alcohol or 2° Alcohol or aldehyde or ketone is oxidised in presence of KMnO_4 or $\text{K}_2\text{Cr}_2\text{O}_7$ in acidic medium it gives Carboxylic acid.



2 By alkyl benzene: → When alkyl benzene (do not depend on side chain) is oxidised in presence of KMnO_4 in acidic medium or basic medium then it gives Carboxylic acid.

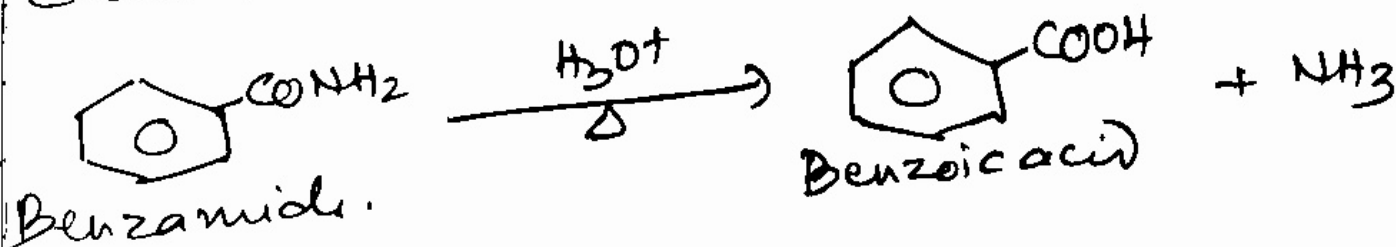
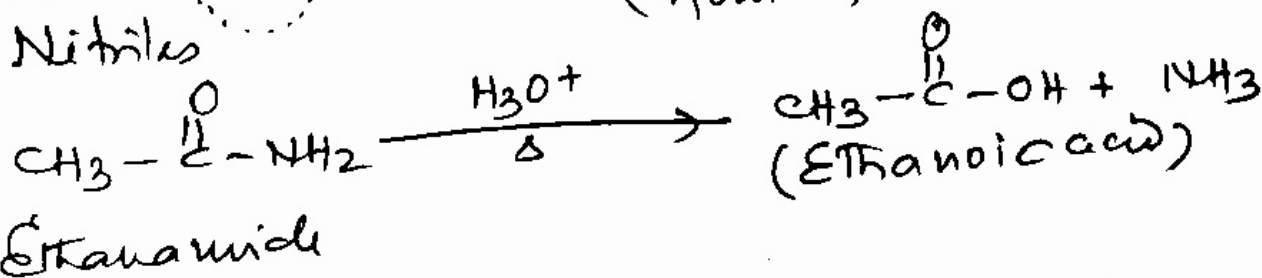
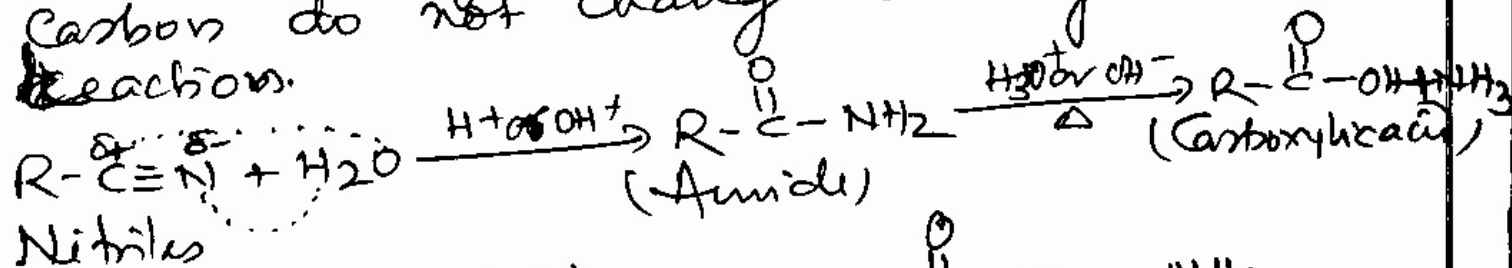
Note: Size of alkyl can not effect to products where alkyl is a side chain in benzene ring.

In basic medium first gives metal Carboxylate which on further hydrolysis in acidic medium gives Carboxylic acid.

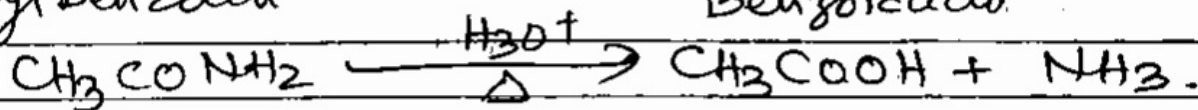
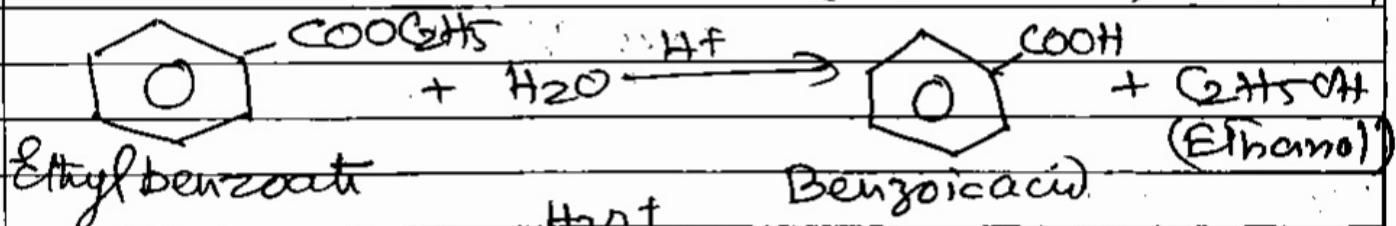
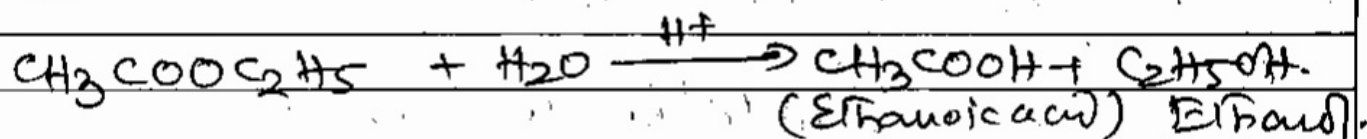
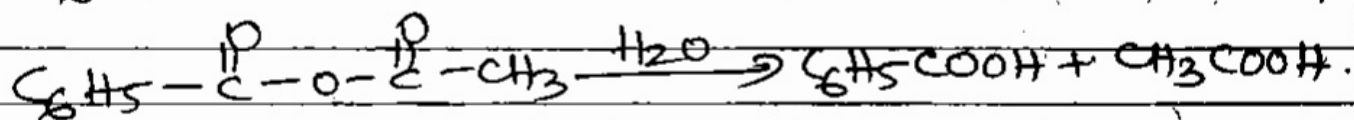
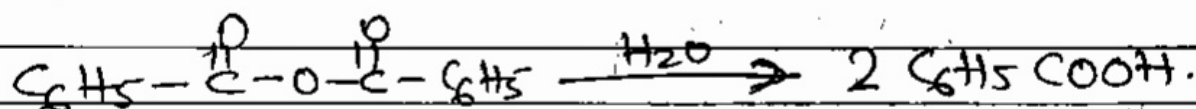


③ By Cyanide or amide: →

When cyanide or nitriles is ~~hydrolysed~~ hydrolysed in acidic or basic medium it gives first amide which is heated in presence of H_3O^+ or OH^- it gives Carboxylic acid, no. of Carbon do not change during the reaction.



④ By hydrolysis of acid chloride or anhydride or amide or ester: $\rightarrow$
 When acid chloride, or anhydride or ester or amide is hydrolysed in suitable medium it gives Carboxylic acid.



Note: Actually ester, acid chloride, amide & anhydride are acid derivative, so on further hydrolysis again give carboxylic acid.